

SUBMISSION
TO
PRODUCTIVITY COMMISSION
ON
ECONOMIC REGULATION OF HARBOUR TOWAGE AND RELATED SERVICES
BY
DALE COLE & ASSOCIATES PTY LTD

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Chapter One Executive Summary

During the last three years Dale Cole & Associates Pty Ltd (DCAPL) has had an interest in the following issues relating to harbour towage services:

- The preparation of submissions to the Productivity Commission;
- The preparation of submissions to Economic Associates Pty Ltd;
- Assisting Ports of Auckland Limited (POAL) prepare business plans covering the following commercial opportunities:
 - Tender for an exclusive towage licence at the port of Gladstone;
 - Expression of Interest for an exclusive towage licence at Fremantle (Inner and Outer Harbours);
- Assisted Shipping Australia Limited (SAL) prepare their response to Adsteam Marine Limited's (Adsteam) notification to the ACCC for a towage rate increase at five of the seven Declared Ports. This assistance was primarily focused on the development of financial models, which forecast Adsteam's trading position at each port;
- Worked with other Flag States, Ship Operators, Port Authorities and Towage Operators to develop strategies designed to deliver improved competitive outcomes in the national/operator's/owners interest. The key outcome of these studies has been to redefine the boundaries of "world's best practice";

To maintain the credibility of its advice DCAPL has consulted widely. Consequently DCAPL's bank of intellectual property is extensive and has been used by the Federal Government, some State Governments, industry representatives and port authorities.

Using this background as a "starting point", DCAPL suggests that competitive outcomes for harbour towage services in Australia can best be achieved (in order of preference) by:

- A tender process for a contestable exclusive licence with a term of no less than seven years;

- Contestable entry;
- Allowing Port Authorities who are responsible for managing low volume ports to own or manage their own or chartered tonnage.

The issue of lines launches and linesmen has to be addressed. This submission will advocate that both are an anachronism with Port Authorities and State Governments being encouraged to change the Regulatory framework to encourage greater freedom of choice.

The need for salvage capable harbour tugs is an issue. A combination of offshore support vessels and "outside" tugs provides a platform to ensure the national interest is protected in an emergency. However the need for each port to have one (or more) salvage capable tug(s) is not necessary and may not be in the "national" interest. Other strategies can be implemented, which will not lessen the risk of environmental damage for Coastal States.

Chapter Seven addresses the questions the PC's Issues Paper raised.

This Submission is a commercial in confidence Submission and no part should be publicly released without approval from DCAPL. However Dale Cole will accept questions formulated from this Submission during the Public Inquiry.

The positions stated in this Submission are supported by POAL.

Chapter Two Exclusive Licences

Based on national and international experience, DCAPL can demonstrate that in low volume ports competitive outcomes are only possible through the mechanism of an exclusive licence.

Australian ports can all be characterised (in tug job terms) as low volume, which make contestability a far less attractive option for both a tug operator and the port's customers.

However to attract interest from towage operators the licensing authority must meet a number of conditions. These are:

- The term of the licence must not be less than seven years;
- The information documents must contain enough information to allow a prospective new entrant to make reasonable revenue assumptions;
- Stipulate the strategy to be used to ensure the transfer of the licence from the incumbent to the new operator is seamless;
- Identify the port's preference in terms of manning, bollard pull, emergency response and "down time" coverage;
- Call for Expressions of Interest at least 15 months before the expiry of a current licence to allow a new entrant time to acquire and position plant and employ and train crews well in advance of the change over date;
- Develop KPIs, which add value to the port's efficiency and are capable of being benchmarked on an "apples to apples" basis.

In recent years the two largest exclusive licence tenders/expressions of interest were offered by the Gladstone Port Authority and the Fremantle Port Authority. With respect to the former, in a port where the tariff was regulated to ensure there was a 15% return on funds employed, the process delivered offers of between 12.5% and 16.5% below the "regulated" price. With respect to Fremantle the non-exclusive licence option attracted an offer of about 15% whilst the exclusive licence option attracted offers in excess of 30%.

For the exclusive licence option to be viable:

- State Governments have to introduce legislation, which mirror's the Western Australian legislation;
- Any new operator must have at least twelve months to build and/or acquire plant, employ crews and train staff in the safe operation of that plant. The time is also needed to fine tune rostering arrangements and develop strategies to ensure the issues pertaining to KPIs are properly addressed.

DCAPL suggests that Australian ports will be more competitive if exclusive licences are introduced. Proof of this statement can be demonstrated by reference to the financial models submitted by DCAPL on behalf of Shipping Australia Limited.

There have been two significant exclusive licence harbour towage tenders to date. POAL have tendered for both. It is of concern that greater weighting appears to be given to issues other than those of price and capability.

DCAPL suggests that the models demonstrate that there would be a significant decrease in tariffs at all five ports if towage services at these ports were put to tender on an exclusive licence basis. Such a process would encourage an "outside the square" approach to reducing costs and at the same time meet investment criteria expected of a publicly listed company.

Chapter Three Contestable Entry

There have been a number of studies, by recognised international towage operators, to ascertain the feasibility of contestable entry into Australia's busiest ports. The outcome of these studies show:

- Contestable entry at any of the four busiest Australian ports is commercially marginal at best;
- In the event contestable entry became a reality, then one of the towage operator's would be forced to exit the market within two years;
- Contestable entry will not deliver the quantum of tariff reductions associated with the exclusive licence process;
- International experience points to a lowering of standards (KPIs) and investment when contestability is used as the instrument to regulate prices.

DCAPL has undertaken a number of contestable entry studies, both nationally and internationally, and, in each case where towage volumes don't exceed 8,000 movements per annum, the commercial risks are high.

However these risks are reduced if the unit price increases to a level where volumes are offset by higher prices.

When Singapore, with annual towage volumes of approximately 84,000 tug jobs, elected to encourage new entrants into the local towage market, the Port of Singapore Authority restricted the number of licences to five.

In the United States, where competitive entry is encouraged, the investment in plant is abysmal and safety standards have been sacrificed.

Chapter Four Port Authorities Owning Tugs

In ports where ship visits or tug job numbers are minimal (under 150 per annum) a case for port authorities to own or operate the tug(s) can be made on the basis:

- That crewing costs can be reduced by devising more productive work patterns for the tug crew;
- Work practices do not lead to demarcation disputes;
- Advisory agreements are entered into (at least initially).

There are a number of alternatives a small regional port authority could adopt. These are:

- To own and manage the tug(s) themselves;
- To call for tenders to supply a tug(s), with the port authority to supply the crew and manage the operation (typical bareboat chartering arrangement);
- To own the tug and tender out management and crewing services.

The options suggested above would be suitable for small Queensland and Western Australian regional ports – especially the Queensland sugar ports where volumes are low and seasonal.

Chapter Five

Other Services

The use of a dedicated lines launch service for berthing or sailing from quay berths is an anachronism. State Governments and port authorities should provide the legislative framework, which will give ship operators the choice of determining the level of auxiliary services required.

Modern highly manoeuvrable tugs have replaced the need to run lines. In reality the task of running lines was a hang over from the period of small ships, less manoeuvrable and low powered tugs. Running a line was necessary to assist the pilot manoeuvre the vessel alongside.

Smaller ship's crews have restricted the options available on the deck of a manoeuvring vessel. Small crews now equate to loss of options to run mooring lines from a vessel receiving "other services".

Lines launches are therefore only necessary when a vessel is arriving at or sailing from a buoy or dolphin berth.

Chapter Six

Emergency Towage and Salvage

Protecting the Nation's coastline from environmental damage can be categorised as follows:

Emergency Response

Currently there are sufficient dual-purpose harbour tugs and offshore support vessels stationed around Australia to provide the nation with a national emergency response capability subject to the following conditions:

- The offshore oil and gas industry retains its current geographical spread.
- Port Authorities continue to release tugs "in the national interest".
- When harbour tugs are used to respond to an emergency, Coastal State Authorities accept these tugs may have limited input, given: (a) the size of the ship in distress (say 250,000 DWT –v- 45 tonne bollard pull tug) and (b) the competence of a harbour tug crew to effectively man an outside tug.
- The Coastal State should name the Australian ports, which are required to "house" an emergency response tug.
- The beneficiaries of this strategy would be Shipowners/Operators, insurers (property and liability) as well as the National Interest. The question of who pays then becomes relevant. DCAPL suggests it should be the shipping industry by way of the normal port tariff and, if there are any extraordinary expenses in maintaining these tugs in designated ports, then the Flag State and the insurance industry should meet these costs.
- Should the above subsection warrant further consideration, then the question of mobilisation and demobilisation expenses (at pre-agreed rates) could be met by either the insurance industry or the Flag State. In the United Kingdom the Flag State meets these expenses.
- Should a designated port go to tender for harbour towage services (whether non-exclusive or exclusive) the port authority on advice from the Flag State must state the specifications of the nominated outside tug. In all cases DCAPL advocates that only one emergency response tug should be stationed at any designated port.

Salvage Response:

- It would be interesting to review the time lines of recent major salvages. This review would show there is a significant delay between the time a salvor boards a casualty and the time towage assistance is used. Salvors would argue that tugs are needed to support the salvage operation, but in essence tugs are needed to enhance the award (payment). The "Jody F Millennium" and "Iron Baron" are two recent examples of the salvors not using/needng tugs for a significant period (eight days) after the grounding.
- Obviously each case will have a different set of time lines, but if Coastal States have time to review their options, then the question of a monopoly salvor will not arise. Should salvage services be required off the north or northwest Australian coast, salvors from Singapore may be better placed to provide more immediate services than locals. After all New Zealand depends on Australian salvors.
- Consequently Australia is in an enviable position (particularly on its north and north west coasts) of having alternatives and normal commercial contestable pressures should determine outcomes.

Chapter Seven Response to Issues Paper

The approach by DCAPL to the questions raised in the PC's Issues Paper is to respond in sequential order from Page 8 in a Bullet Point format.

- Harbour towage operators generally provide fire fighting and emergency response services. However salvage services are usually left to contractors who specialise in this form of commercial activity;
- The bundle of services required from the time a vessel approaches a port until it berths are: pilotage, towage, lines launch(?) and linesmen. In Australia these services are generally provided by the private sector. Pilotage and towage by monopoly suppliers whilst linesmen and lines launch services in larger ports are contestable, but in smaller ports the market is a natural monopoly. Adsteam are the monopoly supplier of harbour towage services in Australia. Small privately owned pilotage companies provide pilotage services in capital city ports whilst Port Authorities and/or State Governments provide pilotage services in regional ports. Lines launch services and lines men are generally provided by small privately owned companies, but some are subsidiaries of Adsteam.

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- The factors, which have driven rationalisation of towage services, are market size. Taking into account the capital cost of a tug and its fixed operating costs, harbour towage is a natural monopoly where there are less than 8,000 tug movements per annum.
- The driver for change in an operator's cost structure would be the introduction of exclusive licences. Where this has occurred in Australia and overseas significant structural change has occurred resulting in reduced tariffs with no consequential decrease in service levels or compromise in safety standards.
- Vertical integration is only feasible in large bulk ports where a significant proportion of the total services (> 75%) are provided to one exporter/importer. In ports where towage services have not been

vertically integrated, the exporter/importer has a significant influence on the choice of towage operator and the tariff.

- The main costs of providing towage services in Australia are: crew costs (about 66% of a tug's operating costs), cost of capital and fuel costs.
- It is difficult to augment or reduce capital costs, which explains why the choice of the cost and type of any new build is so crucial.
- The major fixed costs are wages (both crew and administration) and capital servicing, while the major variable costs are fuel, stores, maintenance and repairs.
- Logically operators' who operate in more than one port should be able to apportion administration costs over all their ports.
- In Australia labour costs do not significantly vary with tug size, but capital costs do. The tendency in Australia has been to build capital-intensive tugs. However overseas experience indicates that there are other options available, which are less capital intensive and just as efficient.

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- Wage levels vary from port, partly as a result of previous industrial agreements, which were drawn up to reflect historical hours of work and productivity levels (tug jobs). However when hours and volumes decrease, which has been the case in a number of ports, there has been no corresponding decrease in salary or manning levels.
- Wages are the most significant influence on costs and these rise with CPI increases and negotiated outcomes. With the exception of fuel, all other operating expenses have increased. The price of fuel fluctuates with world prices, but the excise benefit granted in 2000 has significantly reduced the cost of fuel.
- Productivity changes have predominately been driven by Customers with assistance from Government in terms of Labour Market reforms.
- As a generalisation, Australian productivity levels are on a par with overseas countries whose ports share similar volumes and comparable living standards.

- Operationally Australian towage operations are reasonably efficient, however their pricing structure is far from efficient. DCAPL suggests that exclusive licensing in low volume ports is the only mechanism, which has the capability of delivering price efficiency.
- Apart from labour and fuel other costs have been rising and will continue to rise. However these changes are not significant given their limited influence (<10%) on total costs.
- Demand for towage services at container ports has, at best, been static and is expected to decline when the next generation of container ships are introduced into the Australian trades. The same can be said about sugar ships servicing Queensland sugar ports, however in the case of the major bulk exporting ports (coal, iron ore, and bauxite) growth (ship numbers) are forecast to grow annually by about 2.5% over the next 10 years.
- Container ports will experience the greatest decline in tug job numbers, because larger ships are being progressively introduced into the Australian trade and these ships are fitted with efficient berthing aids (thrusters). Coal, iron ore and bauxite exporting ports will grow in terms of tug job numbers while the wheat exporting ports will experience limited growth along with seasonal fluctuations.

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- In Australia charges are based on the client ship's Gross Tonnage. Some countries/ports charge on a length basis and some countries/ports have penalty provisions in their cost structure i.e. overtime (usually 16.00 to 07.00) and weather (wind speed over 15m/sec). Some ports do have a differential system for charging out tugs based on the type and horse-power (bollard pull) of the tugs. However the Australian way of invoicing towage charges is representative of international practice.
- In Australia prices have generally been static, because volumes have been rising. Now that volumes are static or decreasing the challenge for a towage operator is to cut their costs to suit the new reality.

- Apart from the larger users of towage services there has been no dialogue with users.
- There are significant variations in prices simply because volumes vary so dramatically from port to port. Because the declared ports have greater shipping volumes, their tariffs are lower than the smaller non-declared ports.
- Benchmarking exercises show that Australia's towage costs are generally higher than other ports that share similar volumes and comparable living standards. However this information is difficult to obtain, because of its commercial sensitivity and inherent difficulty in benchmarking ports on an "apples to apples" basis.
- The key quality requirements for harbour towage services are tug capability and punctuality. Towage operators are service providers, therefore roster arrangements have to be developed to ensure late or early arrival of their clients' ship are not a cost burden.
- The quality of service has not declined at either declared or non-declared ports. However there is room for these services to be made more cost efficient.

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- There has been considerable investment in harbour tugs over the past three years, but most of this investment has been inappropriate. Smaller, cheaper and more cost efficient tugs (Canadian designed and operated in Canada and New Zealand) should have been built when Adsteam went through their recent tug acquisition program. If this strategy had of been followed capital cost savings of approximately 40% could have been achieved.
- Investment decisions should be market driven and reflect the requirements of customers, port authorities, pilots, State and Federal Governments. There was very little consultation prior to Adsteam's latest investment decision.
- The Australian towage market is very profitable, whether the ports be declared or non-declared. Rates of return vary from sound to outstanding and, as a generalisation, are on par or better than most

overseas towage operators. Both nationally and internationally harbour towage is an attractive investment. When ship visits grew towage profitability increased significantly. Now that growth has plateaued or is declining, the challenge for local towage operators is to maintain unit costs at previous levels.

- Apart from Liner Shipping users have limited scope to vary the services they require. There are few ports in Australia, which have the volumes that would justify contestable entry. The pilot dictates the scope of tug services provided to a ship with some pilot services being more conscious of their responsibility (Melbourne) than others.
- The efficiency of a ship call to an Australian port is usually measured in terms of the duration of the vessel's stay and the quantity of cargo handled. Tugs play an important role in ensuring high efficiency levels are maintained. Berthing/sailing delays for vessels servicing any Australian ports are unacceptable. Consequently the number of tugs assigned to a port and crew rosters are important ingredients in the supply chain.
- Tug charges are estimated to represent >30% of non-cargo handling port charges.

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- The scale of economies are important in the provision of harbour towage services, because a number of significant costs are fixed (crew) and with increased volumes the only cost increase is fuel, whose impact on costs may be as little as \$A100.00 per tug job.
- As argued elsewhere in this submission, Australian ports (by world standards) are small volume ports and a single operator operating under an exclusive licence is the most cost efficient outcome.
- Changing demand patterns and technology have not affected the most efficient number of towage providers at individual ports.
- There are cost advantages to a user of towage services if the services are supplied by one provider (Adsteam) at the declared ports and/or overseas. However these benefits are not shared with the small users

of towage services (whose combined market share exceeds 60% of towage services in the declared ports).

- Experience in Australia would suggest that there are no cost advantages arising from the provision of related services (emergency towage, salvage, lines launches and mooring lines).
- Generally gains through amalgamation have not been passed on nor have service levels been improved.
- The costs of entry into the Australian towage market are significant. At non-declared ports the number of tugs will vary with size of ships and shipping volumes. The variation would normally be from one tug to four with the cost of each tug varying between \$A0.75m and \$A7.00m. Opportunities to recoup sunk costs will vary with tug design and capability, however opportunities for resale are limited, because of Australia's relative isolation from prospective S&P (Sale and Purchase) markets.
- Chartering (leasing) tugs is a viable short-term strategy. However, for an operator, owning a tug(s) is the most cost efficient option. SAL's financial models clearly show the advantage of ownership over chartering.
- Because of the size of the Australian towage market, alternative options are not credible. Apart from acceptable manning and registration considerations there are no legislative restrictions to an overseas owner entering the Australian towage market.

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- Newcastle was the only recent example in Australia. Because of the small size of the market, this strategy was unsuccessful even though the new entrant had the deepest pockets of any Australian business. There have been several examples of new entrants entering the overseas towage market, however entry has only successfully occurred in ports where towage volumes exceed 8,000 tug jobs per annum.
- Higher prices do lower "the bar" for a prospective new entrant. However, because Australian ports have such relatively low volumes it

is difficult for a new entrant to get the revenue side of the equation “right”. This statement is applicable to all ports, because to attract business the prices a new entrant has to offer will further empower the position of the incumbent.

- Exclusive licensing is seen as the only alternative if harbour towage is accepted as being part of the national competition debate. For this to happen State Governments will have to introduce legislation, which mirror the legislation enacted in Western Australia in 1998.
- Prices surveillance has had no impact on the scope of entry.
- The pilot determines tug usage. This arrangement is not likely to change in the near future.
- The major changes to tug usage regimes have been the introduction by liner shipping and regular port callers (tankers carrying refined products) of vessels fitted with thrusters. This arrangement has led to a significant reduction in tug usage. This trend is likely to continue. No doubt owners, on the premise that international towage charges were excessive, initiated this trend.

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- Because the distance between ports are significant, the prospect of ports competing against one another is not seen as an immediate threat. This happens overseas, but in Australia with the same towage operator in each of the major ports, ports competing against each other would appear to be a non-issue for Adsteam (except for South Australia).
- See Chapter Four (Page 6).
- Port Authorities can control service levels, but have limited influence over prices. The lack of price control relates primarily to the Incumbent’s use of the concept of confidentiality, which enables results to be “hidden” from the Authority.
- Ship operators can exert countervailing powers over the operator, but this power is limited and generally relates to volume discounts.
- Volume discounts are the only tool an operator has to reduce prices. Port Authorities are not included in the loop when these negotiations

are finalised. Should the concept of exclusive licensing be too difficult to introduce, then price control is the only practical alternative.

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- Improvements in productivity have not led to lower prices or moderated price increases.
- As the models demonstrate, profitability in the industry is excessive. The same level of profitability (ROFE) is possible at all of Adsteam’s Australian ports. DCAPL’s definition of excessive profitability is when the return on funds employed exceeds 15%.
- There is evidence of misuse of market power at ports where harbour towage is unregulated. Recent examples in Western Australia and Adsteam’s discussion with Queensland Port Authorities support this statement.
- Adsteam’s pricing policy suggests the weakest (infrequent users of towage services i.e. the charter trade) are required to pay the highest prices, whilst the big users are offered volume discounts. By definition small volume users pay a proportionally higher share of the fixed costs.

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- This submission advocates the use of contestable exclusive licensing as the sole tool to instigate pro-competitive reforms (see Chapter Two).
- The remaining questions on this page have been adequately covered in this Submission.

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- In DCAPL’s view Port Authorities do not have the appropriate incentives or understanding of the components; which would deliver more efficiently priced towage services. The problem appears to lie with their shareholder (State Government) and inability to appreciate

the commercial imperatives. Although Port Authorities are the licensing authority, their commercial performance is not influenced by towage tariffs.

- Because of low volumes, there is no contestable competition at Australian ports. Neither non-exclusive licences nor service agreements are likely to ever deliver competition at either declared or non-declared ports.
- The State Governments can provide the legislative framework to facilitate the introduction of exclusive licences and, as the port's sole shareholder, instruct Port Authorities to introduce exclusive licence regimes. Conversely Port Authorities can encourage their shareholder to introduce the appropriate legislation.
- This question has been beaten to death in this Submission. In all cases where exclusive licences have been issued DCAPL is unaware of any hiccup in either the delivery of services or prices.
- The issuing of contestable exclusive licences is probably at the cutting edge of competition policy. It works in Australia and New Zealand and would work in any other country where there are no genuine competitive influences. In New Zealand, for instance, there is genuine competition between the major ports and this results in significant competitive outcomes for ship owners whose vessels trade to New Zealand. This statement can be tested against the wet charge schedules published by competing ports. These charges are significantly more competitive than comparable Australian ports.

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- If the barriers to contestable entry are insurmountable, then price control of towage tariffs at all Australian ports should be introduced.
- The costs to notify are significant. If surveillance is seen as either a short term or longer-term objective, then a streamlining of the process is recommended.
- Declaration has not been effective in dealing with possible market power in the provision of harbour towage services at Australia's major ports.

- Pricing oversight may have curtailed price increases, but has had little impact on investment and business management. A significant downside is that it has not encouraged businesses to contain costs. Consequently, operators seek better business outcomes through price increases.
- As Adsteam is a monopoly supplier of towage services and, has a history of ignoring surveillance recommendations, the only possible form of prices oversight is Price control (Box 1 refers).

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- DCAPL is unaware of any overseas model, which could provide a benchmark for Australian ports.
- In the absence of a contestable exclusive licence regime, price control would give ship owners confidence that the natural monopoly situation for harbour towage services in Australia was not being abused by Adsteam.

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- Should the States delay the introduction of an exclusive licence regime all harbour support services i.e. pilotage, towage, lines launch and linesmen, which are provided by a dominant provider, should be subjected to price control.